WHAT IS CLAIMED IS:

1. A system to aid in a visual diagnostic process, comprising:

an image database;

3   a knowledge database, cross-referenced to said image database, for the purpose of assisting in the diagnostic process;

a user-interface to solicit, from a user, a plurality of descriptive characteristics

6   of a sample requiring diagnoses;

a diagnostic engine, responsive to said characteristics, wherein said characteristics of the sample are employed by said engine to identify, from a plurality

9   of possible diagnoses, a subset of diagnoses that are consistent with the characteristics; and

using the subset of diagnoses, reorganizing an information space of said

12   image database for concurrent presentation of a plurality of images for user review via the user-interface.

2. The system of claim 1, wherein said diagnostic engine operates dynamically, using the subset of diagnoses, to reorganizing the information space

3   upon modification of at least one of the plurality of descriptive characteristics.

3. A method for aiding a visual diagnostic process, including the steps of:

creating an image database from a collection of images pertaining to a
particular subject matter;

creating a knowledge database with other data related to the particular
subject matter, wherein said knowledge database is cross-referenced to said image
database, for the purpose of assisting in the diagnostic process;

collecting from a user, through a user-interface adapted to the particular
subject matter, a plurality of descriptive characteristics of a sample requiring
diagnoses;

in response to said descriptive characteristics, identifying, from a plurality of
possible diagnoses included within the knowledge database, a subset of diagnoses
consistent with the descriptive characteristics collected from the user; and

using the subset of diagnoses, reorganizing an information space of said
image database for concurrent presentation of a plurality of images related to the
descriptive characteristics for user review via the user-interface.

4. The method of claim 3, wherein said diagnostic engine operates
dynamically, using the subset of diagnoses, to reorganize the information space
upon the user's modification of at least one of the plurality of descriptive
characteristics.

5.   A system for reducing diagnostic uncertainty using cross-referenced knowledge and image databases, comprising:

3   a user-interface to solicit a plurality of characteristics of diagnoses from a user;

a diagnostic engine, wherein said characteristics of diagnoses are employed

6   to identify, from a plurality of possible diagnoses, a subset of diagnoses that are consistent with the characteristics; and

using the subset of diagnoses, reorganizing an information space of the

9   image database for presentation to the user, wherein the presentation is accomplished through the concurrent presentation of a plurality of images for user review.

6. The system of claim 5, wherein the plurality of images are presented as a diagnostic image stack.

7. The system of claim 6, wherein the diagnostic image stack comprises:

a subset of said plurality of images, each image in said subset being

3   associated with a common diagnosis; and

an index into said subset of images wherein the index is independent of the common diagnosis.

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8. The system of claim 6, wherein the diagnostic image stack is displayed to depict stages of disease progression.

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9. The system of claim 6, wherein the diagnostic image stack is displayed to depict a plurality of images associated with a particular diagnosis.

3

10. The system of claim 5, wherein at least one image presented to the user includes a display of associated characteristics of diagnoses when a user selects a

3   portion of an image being displayed.

11. The system of claim 5, wherein the presentation to the user is accomplished through a display, and where the display concurrently indicates textual information related to at least one of the subset of diagnoses.

12. The system of claim 5, wherein the diagnostic engine uses the characteristics of diagnoses to perform a pattern recognition operation on the knowledge database and to identify diagnoses with matching characteristics.

13. The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics of diseases that have a dermatological manifestation.

14. The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics of diseases that are of a visual findings type visible to the unaided human eye.

15. The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics of diseases that are determined based upon a finding determined by mechanical examination means.

16. The system of claim 5, wherein the user-interface to solicit a plurality of characteristics includes at least one symptom represented as an icon.

17. The system of claim 16, wherein the icon is an image depicting the form of a dermatological lesion.

18. The system of claim 16, wherein the icon is an image depicting a distribution of the dermatological lesions about a patient's body.

19.   The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics of oral medications.

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20.   The system of claim 9, wherein the iconic representation is an image depicting the shape of an oral medication.

3

21.   The system of claim 19, wherein the iconic representation is an image depicting a color of an oral medication.

3

22.   The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics determined during an autopsy.

3

23.   The system of claim 5, wherein the system for reducing diagnostic uncertainty is applicable to and includes characteristics of a crime scene.

3

24.   The system of claim 5, wherein the plurality of characteristics of diagnoses are selected from the group consisting of:

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    patient medical history;

    patient symptoms; and

    patient medication.

6

25. A system for aiding in the identification of orally-administered drugs using cross-referenced knowledge and image databases, comprising:

3   a user-interface to solicit a plurality of orally-administered drug characteristics;

a diagnostic engine, wherein said characteristics are employed to identify, from a plurality of possible identifications, a subset of identifications that are

6   consistent with the characteristics; and

using the subset of identifications, reorganizing an information space of the image database for presentation to the user, wherein the presentation is

9   accomplished through the concurrent presentation of a plurality of images of orally-administered drugs for user review as image stacks.

26. The system of claim 25, wherein the pill characteristics include at least once characteristic selected from the group consisting of:

3   color;

markings;

shape; and

6   size.

27. A system for cross-referenced access to image and knowledge databases for the purpose of assisting in the identification of street drugs, comprising:

3   a user-interface to solicit a plurality of characteristics of a sample from a user, including one of the group of characteristics consisting of form, method of administration, markings, color, geographic location of use, user symptoms, and

6   chemical composition;

a diagnostic engine, wherein said characteristics of the sample are employed to identify, from a plurality of possible street drugs, a subset of street drugs that are

9   consistent with the characteristics; and

using the subset of street drugs, reorganizing an information space of the image database for presentation to the user, wherein the presentation is

12   accomplished through the concurrent presentation of a plurality of images for user review in the identification of the street drug.

28.   A system for cross-referenced access to image and knowledge databases for the purpose of assisting in the investigation of a death, comprising:

3   a user-interface to solicit a plurality of characteristics of the death, including at least one of the group of characteristics consisting of manner of death, wound type, sub-wound type, modality, and medical lexicon;

6   a diagnostic engine, wherein said characteristics of the death are employed to identify, from a plurality of possible causes of death, a subset of causes that are consistent with the characteristics; and

9   using the subset of causes, reorganizing an information space of the image database for presentation to the user, wherein the presentation is accomplished through the concurrent presentation of a plurality of images for user review in the

12   identification of the cause of death.

29.   A system for cross-referenced access to image and knowledge databases for the purpose of assisting in the identification of plants, comprising:

3   a user-interface to solicit a plurality of descriptive characteristics of a plant sample from a user;

a diagnostic engine, wherein said characteristics of the plant sample are
6   employed to identify, from a plurality of possible plants, a subset of plants that are consistent with the characteristics; and

using the subset of plants, reorganizing an information space of the image
9   database for presentation to the user, wherein the presentation is accomplished through the concurrent presentation of a plurality of images for user review in the identification of the plant.

30. The system of claim 29, wherein at least one of said descriptive characteristics is selected from the group consisting of:

3   size;

leaf shape;

leaf size;

6   vein pattern;

coloration;

stem type; and

9   geographic location where found.